

CW



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,471	11/15/2003	Tianqing He		2502

7590

01/12/2005

Michael E. Mauney
Attorney at Law
Post Office Box 10266
Southport, NC 28461

EXAMINER

LU, JIPING

ART UNIT PAPER NUMBER

3749

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/714,471	Applicant(s) HE ET AL.	
	Examiner Jiping Lu	Art Unit 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 11-20, 22 and 35-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 21 and 23-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/15/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Fig. 2, claims 1-10, 21-22 and 23-34 in the reply filed on 10/14/2004 is acknowledged. The traversal is on the ground(s) that Figures 1 and 5 are not distinct inventions. This is not found persuasive because Figure 1 shows a heater 310 and a temperature sensor 311 located outside the air inlet 110 while Figure 5 shows a heater 310 and a temperature sensor 311 located inside the air inlet 110. However, if applicants admit on the record that the locations of the heater and the temperature sensor are obvious variants, then examiner will withdraw the restrictions regarding the patentably distinct species of Figures 1 and 5.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 11-20, 35-43 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 10/14/2004.

3. Claim 22 are held to be withdrawn from further consideration under 37 CFR 1.142(b) as not readable on the elected species, there being no allowable generic claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3749

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Wennerstrum et al. (U. S. Pat. 4,882,851).

Wennerstrum et al. show an apparatus and a method for drying a sample comprising a sealable chamber 10, cold trap 34, a pump 40 for creating a vacuum and heating means 12 for supplying electromagnetic energy to the interior of the sealable chamber 10, pressure sensors 76 for measuring the vacuum and control means 42 which are arranged same as claimed.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 3749

8. Claims 4-5, 7-8 and 27-28, 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wennerstrum et al. (U. S. Pat. 4,882,851) in view of Dhaemers (U. S. Pat. 5,546,678).

The drying apparatus and method of Wennerstrum et al. as above includes all that is recited in claims 4-5, 7-8, 27-28 and 30-31 except for the an infrared lamp for heating the chamber and means for measuring humidity in the chamber. Dhaemers teaches a drying apparatus and method with infrared light 73 for heating the chamber 41 (see Fig. 6 and Col. 6, lines 3-6) and a humidistat 112 for measuring humidity in the chamber 41 same as claimed. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the microwave generator 12 of Wennerstrum et al. with an infrared light as taught by Dhaemers in order to supply the heating energy in the infrared range and to provide the drying apparatus and method of Wennerstrum et al. with a humidistat as taught by Dhaemers in order to measuring the humidity in the drying chamber and therefore improve the drying efficiency.

9. Claims 6, 9, 29, 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wennerstrum et al. (U. S. Pat. 4,882,851) in view of Dhaemers (U. S. Pat. 5,546,678) as applied to claims 5, 28 above, and further in view of Hunter et al. (U. S. Pat. 6,085,443).

The drying apparatus and method of Wennerstrum et al. as modified by Dhaemers as above includes all that is recited in claims 6, 9, 29, 33-34 except for a load cell for weighing the sample and thus determining the amount of moisture in the sample. Hunter et al teach a concept of using a load cell 50 for weighing the product in bin 40 and thus determining the moisture of the product in bin 40 same as claimed. Therefore, it would have been obvious to one having

Art Unit: 3749

ordinary skill in the art at the time the invention was made to provide the drying apparatus and method of Wennerstrum et al. with a load cell as taught by Hunter et al. in order to weigh the sample and determine the amount of the moisture in the sample. With regard to the claims 9 and 33, it would have been obvious to one having ordinary skill in the art to weigh the samples on an external scale since applicants have not disclosed that location of weighing solves any state problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill and it appears that the claimed feature for removing samples from the chamber and weighing the sample on an external scale does not distinguish the invention over similar features in the prior art which weighing the sample in the chamber.

10. Claims 10, 21, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wennerstrum et al. (U. S. Pat. 4,882,851) in view of Dhaemers (U. S. Pat. 5,546,678) as applied to claims 5, 28 above, and further in view of Davis et al (U. S. Pat. 6,410,889).


The drying apparatus and method of Wennerstrum et al. as modified by Dhaemers as above includes all that is recited in claims 10, 21, 32 except for a heating pad for the heating the chamber. Davis et al teach a concept of using a heating pad¹³² for heating the chamber 122 same as claimed. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the drying apparatus and method of Wennerstrum et al. with a heating pad as taught by Davis et al. in order to improve the heating efficiency.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jiping Lu whose telephone number is 571 272 4878. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on 571 272-4877. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jiping Lu
Primary Examiner
Art Unit 3749

J. L.